

## What is Claimed is:

- 1. An optical transmitter comprising:
  - a planarized header;
- a laser mounted on a plane of the planarized header, wherein an axis of light emitted from the laser is parallel to the plane; and
  - a temperature sensor located on the planarized header;

wherein a temperature of the laser is obtained from an output of the temperature sensor without application of an offset to the output of the temperature sensor.

- 2. The optical transmitter of claim 1, wherein the temperature sensor is within 2.5 mm of the laser.
- 15 3. The optical transmitter of claim 1, wherein the temperature sensor is within 1 mm of the laser.
  - 4. The optical transmitter of claim 1, wherein the laser is a semiconductor laser.